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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,856	01/15/2004	Christopher G. Malone	200311275-1	8746
22879	7590	12/06/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			PAPE, ZACHARY	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/759,856	Applicant(s) MALONE ET AL.	
	Examiner Zachary M. Pape	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/25/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/27/2005 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 7/25/2005 was filed after the mailing date of the original application on 1/15/2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-13, 15-18, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elko et al. (US 4,894,749) in view of Orr (US 6,758,353).

With respect to claims 1 and 4, Elko et al teaches a slot filler adapted for usage in a rack cabinet (10) configured to accept a plurality of stacked housing-contained standard electronic equipment devices (14), the cabinet having an air inlet (11) and exit (subsequent holes adjacent 10) on mutually opposing sides and a plurality of slots capable of securing the stacked electronic devices, the slot filler comprising: a blanking panel (32) adapted to cover an entry opening of an unoccupied slot (Column 3, Lines 62-65); and a body (30) coupled to the blanking panel that emulates dimensions of a housing-contained standard electronic equipment device (Column 3, Lines 26-28) and has a thickness selected so that clearance between the slot filler and an adjacent housing-contained electronic device and/or slot filler leaves an air flow gap from the air inlet to exit that is sufficiently small to create an air flow resistance preventing air from re-circling toward the air inlet (As illustrated in Fig 2, the air flows from the fan (11) into the air flow gap, past the electronic devices, and out through the holes located on the other end of the housing). Elko et al. fails to teach that the electronic equipment devices are U or any multiple thereof. Orr teaches the conventionality of sizing filler panels (5, 6) to a U or any multiple thereof (Column 3, Lines 50-52). It would have been obvious to one of ordinary skill in the cooling art at the time the invention was made to combine the teachings of Orr with that of Elko et al. such that the slot fillers of Elko et al. conform to the standards generally accepted by the Electronic Industry Association (EIA; Column 3, Lines 43-52).

With respect to claim 8 Elko et al. teaches a system comprising: a rack cabinet (10) adapted to hold a plurality of stacked housing contained standard electronic

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devices (14); an air inlet (11) and exit (subsequent holes adjacent 10) coupled to mutually opposing sides of the cabinet; a plurality of slots (Fig 2 as occupied by 14, 15) contained within the cabinet and adapted to secure the stacked housing contained standard electronic devices; and a slot filler (15) comprising: a blanking panel (32) capable of covering an entry opening of an unoccupied slot (Column 3, Lines 62-65); and a body (30) coupled to the blanking panel that emulates dimensions of a housing contained standard electronic device (Column 3, Lines 26-28) and has a thickness selected so that clearance between the slot filler and an adjacent housing contained standard electronic device and/or slot filler leaves an air flow gap from the air inlet to exit that is sufficiently small to create an air flow resistance preventing air from re-circling toward the air inlet (As illustrated in Fig 2, the air flows from the fan (11) into the air flow gap, past the electronic devices/fillers, and out through the holes located on the other end of the housing). Elko et al. fails to teach that the electronic equipment devices are U or any multiple thereof. Orr teaches the conventionality of sizing filler panels (5, 6) to a U or any multiple thereof (Column 3, Lines 50-52). It would have been obvious to one of ordinary skill in the cooling art at the time the invention was made to combine the teachings of Orr with that of Elko et al. such that the slot fillers of Elko et al. conform to the standards generally accepted by the Electronic Industry Association (EIA; Column 3, Lines 43-52).

With respect to claim 11 Elko et al. teaches a system comprising: a rack cabinet (10) adapted to hold a plurality of stacked housing contained electronic devices (14); an air inlet (11) and exit (subsequent holes adjacent 10) coupled to mutually opposing

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sides of the cabinet; a plurality of slots (Fig 2 as occupied by 14, 15) contained within the cabinet and adapted to secure the stacked housing contained electronic devices; and a slot filler (15) adapted for usage in a rack cabinet configured to accept a plurality of stacked standard electronic equipment devices having a box structure, the slot filler comprising: a blanking panel (32) configured to cover an entry opening of an unoccupied slot (Column 3, Lines 62-65); and a box structure (30) coupled to the blanking panel that emulates dimensions of a housing contained electronic device (Column 3, Lines 26-28) and has a thickness selected so that clearance between the slot filler and an adjacent housing contained electronic device and/or slot filler leaves an air flow gap from the air inlet to exit that is sufficiently small to create an air flow resistance preventing air from re-circling toward the air inlet (As illustrated in Fig 2, the air flows from the fan (11) into the air flow gap, past the electronic devices/fillers, and out through the holes located on the other end of the housing). Elko et al. fails to teach that the electronic equipment devices are U or any multiple thereof. Orr teaches the conventionality of sizing filler panels (5, 6) to a U or any multiple thereof (Column 3, Lines 50-52). It would have been obvious to one of ordinary skill in the cooling art at the time the invention was made to combine the teachings of Orr with that of Elko et al. such that the slot fillers of Elko et al. conform to the standards generally accepted by the Electronic Industry Association (EIA; Column 3, Lines 43-52).

With respect to claims 2 and 9, Elko et al. further teaches that the cabinet has a frontal surface (Adjacent 12) and columns (13) coupled to the frontal surface on later

ends of the plurality of slots; and the blanking panel attaches to the columns (As illustrated in Figs 2 and 5).

With respect to claims 3 and 10, Elko et al. further teaches that the blanking panel (32) is a cosmetic plate that is used to cover open spaces in the cabinet and to facilitate controlled airflow (Column 3, Lines 29-35), and is constructed from sheet metal and/or plastic; and the body is constructed from sheet metal and/or plastic (Column 3, Lines 57-59; Fig 3 illustrates that the plate (32) and the body (30) are constructed as one piece and therefore the body and plate are both made of sheet metal (aluminum)).

With respect to claims 5 and 12, Elko et al. further teaches that the body shape is approximately a rectangular polyhedron (14 as illustrated in Fig 2).

With respect to claims 6 and 13, Elko et al. further teaches that the body shape is approximately a rigid rectangular plate (As illustrated in Fig 3).

With respect to claims 15 and 16, the method steps recited in the claims are inherently necessitated by the device structure as taught by the Elko et al. and Orr references.

With respect to claim 17, Elko et al. further teaches receiving the cooling air stream flow into the housing (via fan 11) from an air inlet in a front portion of the housing; and venting warm air from the stacked electronic devices to an exit in a rear portion of the housing (subsequent holes adjacent 10, on the housing wall opposite the fan).

With respect to claim 18, Elko et al. further teaches covering the slot filler in an unoccupied slot with an ornamental covering (32 – Column 3, Lines 62-65).

With respect to claim 20, Elko et al. teaches a system comprising: a housing (10) with a plurality of slots (14, 16) regularly arranged in a stack for receiving multiple housing contained standard electronic equipment devices (14), the housing having an air inlet (11) and an air exit (subsequent holes adjacent 10, on the housing wall opposite the fan) for passing cooling air through the housing contained standard electronic equipment devices (As illustrated with arrows 18), at least one housing contained standard electronic device (14) inserted into at least one of the plurality of slots; and at least one slot filler (15) inserted into the plurality of slots, the slot fillers having dimensions that emulate dimensions of a housing contained electronic device (Column 3, Lines 26-28) the at least one housing contained standard electronic device and the slot filler having an arrangement when inserted into the slots so that clearance between the adjacent slot fillers and/or housing contained standard electronic device is an air flow gap that extends from the air inlet to the air exit that is sufficiently small to create an air flow resistance preventing air from re-circling toward the air inlet (As illustrated in Fig 2, the air flows from the fan (11) into the air flow gap, past the electronic devices/fillers, and out through the holes located on the other end of the housing). Elko et al. fails to teach that the electronic equipment devices are U or any multiple thereof. Orr teaches the conventionality of sizing filler panels (5, 6) to a U or any multiple thereof (Column 3, Lines 50-52). It would have been obvious to one of ordinary skill in the cooling art at the time the invention was made to combine the teachings of Orr with that of Elko et al. such that the slot fillers of Elko et al. conform to the standards generally accepted by the Electronic Industry Association (EIA; Column 3, Lines 43-52).

With respect to claim 21, Elko et al. teaches a system for controlling airflow in an electronic system comprising: means (10) for encasing a plurality of housing contained standard electronic equipment devices, means (13) within the encasing means for receiving the plurality of housing contained standard electronic devices arranged in a stack; means (11) for directing a cooling air stream flow over the plurality of stacked housing contained standard electronic devices from an air inlet to an exit (Column 3, Lines 28-44); and means (15) for filling any unoccupied receiving means, the receiving means, standard electronic devices, and filling means being arranged with a selected clearance between adjacent standard electronic devices and/or filling means leaving an air flow gap from the air inlet to exit that is sufficiently small to create an air flow resistance preventing air from re-circling toward the air inlet (As illustrated in Fig 2, the air flows from the fan (11) into the air flow gap, past the electronic devices/fillers, and out through the holes located on the other end of the housing). Elko et al. fails to teach that the electronic equipment devices are U or any multiple thereof. Orr teaches the conventionality of sizing filler panels (5, 6) to a U or any multiple thereof (Column 3, Lines 50-52). It would have been obvious to one of ordinary skill in the cooling art at the time the invention was made to combine the teachings of Orr with that of Elko et al. such that the slot fillers of Elko et al. conform to the standards generally accepted by the Electronic Industry Association (EIA; Column 3, Lines 43-52).

Claims 7, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elko et al. in view of Orr and further in view of Feightner et al. (US 5,214,567).

With respect to claims 7, 14, and 19, Elko et al. in view of Orr teaches the limitations of claims 1, 8, and 15 above, but fails to teach that the body has a telescoping body with length adjustment, a perforated break line, and a plurality of rigid rectangular plates with a sliding mechanism. Feightner et al. teaches the use of a body (26) having an adjustable length for extension into a cabinet at a controlled depth, the body consisting of a telescoping body (As illustrated in Fig 3; Column 3, Lines 4-12) with a joint enabling length adjustment (38), the body further has one perforated break line (Fig 2, along 38) weakening the body structure at selected depths into the cabinet, and the body including a plurality of rigid plates with a sliding mechanism enabling the plates to slide relative to one another (Column 3, Lines 4-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the telescoping body and its features of Feightner et al. with the teachings of Elko et al. and Orr to provide a means of making the slot filler of Elko et al. adjustable to various length so that the slot filler can be used in a computer system having various widths/lengths (Feightner; Column 3, Lines 9-11).

Response to Arguments

4. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,927,976; US 5,410,448 both teach fooling systems for electronic devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZMP

 **ANATOLY VORTMAN**
PRIMARY EXAMINER